Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for controlling an execution of a computer program having multitasking capability on a computing element of a controller at least one of controlling and regulating a system that is able to assume various possible system states, comprising:

defining transition conditions for each possible transition of one of the system states into another of the system states; and

controlling the execution of the computer program in such a way that the system is transitioned from a first system state into a second system state only when all of the transition conditions defined for the transition have been fulfilled.

2. (Original) The method according to claim 1, wherein the computing element is a microprocessor.

3. (Original) The method as recited in claim 1, wherein each one of the transition conditions includes at least one transition interrogation and at least one corresponding transition value as a response given to the transition interrogation, the one of the transition conditions being regarded as having been fulfilled when the transition value is returned as the response to the transition interrogation.

4. (Original) The method as recited in claim 3, further comprising:

filing the transition values in a transition table.

5. (Original) The method as recited in claim 1, wherein the computer program is subdivided into a plurality of functionally linked functionalities, and wherein the method further comprises:

allocating specifiable operating states to the functionalities for each of the system states, the transition conditions being satisfied if at least the functionalities which characterize the second system state have the operating states allocated to them for the second system state.

6. (Original) The method as recited in claim 5, wherein each of the operating states is defined by an operating state variable which is able to take on various operating state values, and wherein the transition conditions are satisfied if at least the operating state variables of the functionalities which characterize the second system state have the operating state values defined for them for the second system state.

7. (Original) The method as recited in claim 5, wherein the operating state variable is able to take on operating state values corresponding to the settings "full functionality", "limited functionality" and "no functionality".

8. (Original) The method as recited in claim 5, further comprising:

assigning a transition table to each of the functionalities.

9. (Original) The method as recited in claim 5, wherein a plurality of functionalities are combined into a component and a transition table is assigned to the component.

10. (Original) The method as recited in claim 1, wherein the system is a system in a vehicle.

11. (Original) The method according to claim 10, wherein the vehicle is a motor vehicle.

12. (Original) The method as recited in claim 11, wherein the system is a driving dynamics system in the motor vehicle.

13. (Original) The method as recited in claim 1, wherein the system is a system in a building.

14. (Original) The method as recited in claim 13, wherein the system is at least one of an alarm system, a heating and air conditioning system, and an access control system in the building.

15. (Original) A storage element storing a control program for controlling execution of a computer program having multitasking capability on a computing element of a controller for at least one of controlling and regulating a system that can assume various possible system states, the control program being executable on the computing element, wherein the control program causes the computing element to perform a method comprising:

defining transition conditions for each possible transition of one of the system states into another of the system states; and

controlling the execution of the computer program in such a way that the system is transitioned from a first system state into a second system state only when all of the transition conditions defined for the transition have been fulfilled.

16. (Original) The storage element as recited in claim 15, wherein the control program is stored on one of a storage read-only memory, a random access memory, or a flash memory.

17. (Original) A controller for at least one of controlling and regulating a system which is able to assume various possible system states, comprising:

a computing element on which a computer program having multitasking capability may be run;

an arrangement for controlling execution of the computer program; and

an arrangement for defining transition conditions for every possible transition from one system state into another system state;

wherein the arrangement for controlling the execution of the computer program controls the execution of the computer program in such a way that the system changes from a first system state into a second system state only when all of the transition conditions defined for the transition are fulfilled.

18. (Original) The controller according to claim 17, wherein the computing element is a microprocessor.

19. (Original) The controller as recited in claim 17, wherein each one of the transition conditions includes at least one transition interrogation and at least one corresponding transition value as a response given to the transition interrogation, the one of the transition conditions being regarded as having been fulfilled when the transition value is returned as the response to the transition interrogation.

20. (New) The controller as recited in claim 17, wherein the arrangement for controlling the execution of the computer program includes a control program which is executable on the computing element.

21. (New) The method as recited in claim 1, wherein an availability of at least one input variable required for performance by the computer program of at least one task is dependent on performance by the computer program of at least one other task, and wherein satisfaction of at least one of the transition conditions is dependent upon the availability of the at least one input variable for the performance of the at least one task.

22. (New) The method as recited in claim 21, wherein a frequency of performance of the at least one task and a frequency of performance of the at least one other task differ.

23. (New) The method as recited in claim 4, wherein the transition table is a knowledge database stored on a storage element.

24. (New) The storage element as recited in claim 15, wherein an availability of at least one input variable required for performance by the computer program of at least one task is dependent on performance by the computer program of at least one other task, and wherein

satisfaction of at least one of the transition conditions is dependent upon the availability of the at least one input variable for the performance of the at least one task.

25. (New) The controller as recited in claim 17, wherein an availability of at least one input variable required for performance by the computer program of at least one task is dependent on performance by the computer program of at least one other task, and wherein satisfaction of at least one of the transition conditions is dependent upon the availability of the at least one input variable for the performance of the at least one task.